



Improving lives with solar-powered lighting systems

Philips Fortimo LED linear light module Solar -
creating light where light was impossible before

PHILIPS
sense and simplicity



Fortimo LED linear light module (LLM) Gen 3 Solar system provides sustainable and affordable off-grid lighting solutions for places where, until now, light was unthinkable.

There are 1.6 billion people worldwide without access to a stable supply of electricity. Once the sun sets, life in these communities comes to an abrupt halt. This affects education, security, productivity, employment and general quality of life.

Comfortable and efficient white light

Fortimo LED LLM Solar delivers high-quality, energy-efficient white light. The system is designed specifically for outdoor off-grid applications where electricity from the grid is not available or is very unreliable. The module offers a choice of warm or neutral color temperatures and high color rendering. The dedicated Xitanium LED driver delivers excellent system performance and reliability. The system can also be used indoors, thanks to the high quality of light it produces.

Designed with tomorrow in mind

Bare LED efficacy is continuously improving, and these improvements will be incorporated into the Fortimo LED modules without any change to the dimensions, shape or lumen output of the system. This makes Fortimo LED LLM Solar a truly future-proof solution, enabling luminaire manufacturers to adapt existing luminaires and design new product ranges for the coming years, bringing down the integral system cost of a complete off-grid lighting solution.

Off-grid Applications

- Residential areas
- City centres
- Street lighting
- Parks
- Stadiums
- Security lighting

Benefits

- Comfortable, glare-free white light
- Reduced light pollution (no sky glow)
- No carbon emissions and no energy bills
- Suitable for dimming and telemanagement systems
- Future-proof concept
- Easy to design into existing or new luminaires
- Integrated dimming results in lower overall system cost (smaller panel/generator and battery)

Features

- Latest high-power LEDs for outstanding performance
- Choice of warm (3000 K) or neutral (4000 K) white light
- High system reliability, including excellent lumen maintenance, thermal module and battery protection
- Dimming with programmable LumiStep

Compliance and approvals

Philips Fortimo LED LLM Gen 3 modules comply with all applicable legislation, including RoHS (Restriction of Hazardous Substances) and WEEE (Waste Electrical and Electronic Equipment). All components used are lead-free and soldered in a lead-free soldering process (EU directive 2002/95/EC).



Schematic diagram of a solar-powered system, including Philips Fortimo LED LLM Gen 3 and Xitanium driver

Specifications

Controls and dimming

The Xitanium LED 12-24V DC driver incorporates dimming intelligence, which enables the scarce energy collected to be used by the system to deliver the best possible performance and reliability.

- Programmable LumiStep
- Battery protection
- Pulse-width Modulation (PWM)

General system characteristics

System lifetime (70% lumen maintenance): 50.000 hours
 Color consistency: SDMC < 7
 T ambient (°C) : -20 to +65 °C
 Temperature protection (the light output will be reduced to 0)
 Module thermal cut-off Tcase max: +75 °C
 Solar driver thermal cut-off Tcase max: +75 °C
 Input voltage: 12-24V DC

Product specification (system)

Product	Light output (lm)	Correlated color temperature (K)	Color rendering index (min. R _a)	Module power (W)	Thermal load (W)	System power (W)	System efficacy (lm/W)
Fortimo LED LLM 1800/730 19W Gen3	1800	3000	70	19	14	20	89
Fortimo LED LLM 1800/740 17W Gen3	1800	4000	70	17	11	19	95
Fortimo LED LLM 3000/730 33W Gen3	3000	3000	70	33	24	36	83
Fortimo LED LLM 3000/740 30W Gen3	3000	4000	70	30	20	32	95

Fortimo LED LLM Solar systems

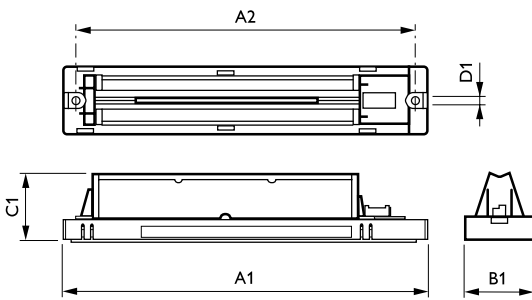
System	Module	Driver	Cable
1800 lm/ 3000 K	Fortimo LED LLM 1800/730 19W Gen3	Xitanium 40W 0.2-0.7A LS 12-24V	Cable Fortimo solar 7pin to 7pin
1800 lm/ 4000 K	Fortimo LED LLM 1800/740 17W Gen3	Xitanium 40W 0.2-0.7A LS 12-24V	Cable Fortimo solar 7pin to 7pin
3000 lm/ 3000 K	Fortimo LED LLM 3000/730 33W Gen3	Xitanium 40W 0.2-0.7A LS 12-24V	Cable Fortimo solar 7pin to 7pin
3000 lm/ 4000 K	Fortimo LED LLM 3000/740 30W Gen3	Xitanium 40W 0.2-0.7A LS 12-24V	Cable Fortimo solar 7pin to 7pin

Note: Fortimo LED LLM 1800 lm systems may only be used with a single 12V battery. Voltage input to the driver cannot exceed 20V.

Ordering data

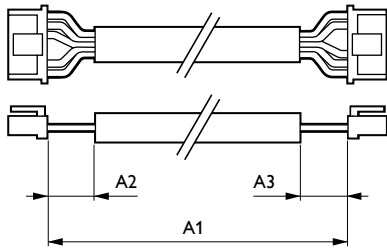
Product	GPC	EOC	MOQ
Fortimo LED LLM 1800/730 19W Gen3	9290 008 32903	871829125353200	6
Fortimo LED LLM 1800/740 17W Gen3	9290 008 33003	871829125355600	6
Fortimo LED LLM 3000/730 33W Gen3	9290 008 33103	871829125357000	6
Fortimo LED LLM 3000/740 30W Gen3	9290 008 33203	871829125359400	6
Cable Fortimo solar 7pin to 7pin	9290 008 38003	871829125424900	6
Xitanium 40W 0.2-0.7A LS 12-24V	9290 006 11903	872790092559300	6

Dimensions (± 2mm)



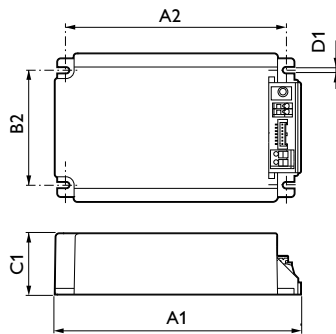
Fortimo LED LLM Gen 3

	A1	A2	B1	C1	D1
All types	230.0	214.5	43.0	40.5	4.5



Fortimo LED cable

	A1	A2	A3
Cable Fortimo solar 7pin to 7pin	600	20	20



Xitanium LED driver DC input

	A1	A2	B2	C1	D1
Xitanium 40W 0.2-0.7A LS 12-24V	149.6	134	70	36.8	4.5



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Data subject to change.